

CLAIMS

Having described the invention, the following is claimed:

1. A mezzanine safety gate including posts adapted to be mounted at the edge of a mezzanine, a gate between said posts, normally closed and locked, a cage mounted on said posts for vertical movement, and means responsive to the location of said cage during vertical downward movement to unlock said gate.
2. A mezzanine safety gate as set forth in claim 1 including means to open said gate responsive to continued downward movement of said railing.
3. A mezzanine safety gate as set forth in claim 2 including a counterweight for said cage operative to lock the gate shut in one position and unlock the gate in an other position.
4. A mezzanine safety gate as set forth in claim 3 including a hinge for said gate, and a guide tube on said gate for said counterweight offset from the hinge.
5. A mezzanine safety gate as set forth in claim 4 wherein said means to open the gate comprises cam means on said cage.
6. A mezzanine safety gate as set forth in claim 5 including a portion of said cam means positioned to cause said gate to swing more than 90°.

7. A mezzanine safety gate as set forth in claim 6 including a right angle bend on said cam means, and a roller on said gate operative to engage the cam.

8. A mezzanine safety gate as set forth in claim 7 including a spring on said gate to maintain the gate roller in contact with the cam.

9. A mezzanine safety gate as set forth in claim 8 including pad means to maintain the gate closed for alignment with the counterweight.

10. A mezzanine safety gate as set forth in claim 4 including a guide tube for said counterweight both above and below the guide tube on said gate.

11. A mezzanine safety gate including posts mounted at the edge of a mezzanine, a gate between said posts, a cage mounted on said posts for vertical movement, and means responsive to vertical upward movement of said cage first to close said gate and then to lock the gate.

12. A mezzanine safety gate including posts mounted at the edge of a mezzanine, a gate between said posts, a cage mounted on said posts for vertical movement, and means responsive to vertical downward movement of said cage first to unlock said gate, and then to open said gate.

13. A mezzanine safety gate comprising posts adapted to be positioned adjacent the mezzanine edge, a gate extending between said posts at the edge, a cage railing supported by said posts and adapted to be raised and lowered, and means responsive to a range of movement of said cage railing approaching and leaving the mezzanine to open and close said gate respectively.

14. A mezzanine safety gate as set forth in claim 13 wherein said last mentioned means includes means to unlock and lock said gate.

15. a mezzanine safety gate as set forth in claim 14 wherein said gate is a swing gate blocked against swinging when locked.

16. A mezzanine safety gate as set forth in claim 15 including cam means to open and close the gate when unlocked.

17. A mezzanine safety gate as set forth in claim 16 wherein said cam means is mounted on said cage railing for vertical movement therewith.

18. A mezzanine safety gate as set forth in claim 15 wherein said last mentioned means is a counterweight attached to said cage railing.

19. A mezzanine safety gate as set forth in claim 18 wherein said counterweight telescopes into and out of a gate guide tube on said gate.

20. A mezzanine safety gate as set forth in claim 19 wherein said gate includes a hinge pivot offset from said gate guide tube.

21. A mezzanine safety gate as set forth in claim 20 including a fixed guide tube for said counterweight.

22. A mezzanine safety gate as set forth in claim 21 including fixed guide tubes for said counterweight above and below said gate.